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Total Number of Pages in This Submission: 51

Application Number	08/421,055
Filing Date	April 12, 1995
First Named Inventor	Johnson et al.
Art Unit	1733
Examiner Name	Johnstone, A.C.
Attorney Docket Number	49286US003 (10002.0098US01)

ENCLOSURES *(Check all that apply)*

- ☐ Fee Transmittal Form
  - ☐ Fee Attached
- ☐ Amendment/Reply
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  - ☐ Affidavits/declaration(s)
- ☐ Extension of Time Request
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- ☐ Information Disclosure Statement
- ☐ Certified Copy of Priority Document(s)
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SIGNATURE OF APPLICANT, ATTORNEY, OR AGENT

Firm Name	WITHERS & KEYS, LLC		
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Printed name	JAMES D. WITHERS		
Date	September 11, 2007	Reg. No.	40,376

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Patent

32692
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Docket No: **49286US003**

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

First Named Inventor:	**JOHNSON**		
Application No.:	**08/421,055**	Group Art Unit:	**1733**
Filed:	**April 12, 1995**	Examiner:	**A. Johnstone**

Title: **MELT-FLOWABLE MATERIALS AND METHOD OF SEALING SURFACES**

SUBSTITUTE BRIEF ON APPEAL

Mail Stop Appeal Brief-Patents
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Sept. 11, 2007
Date: September 11, 2007 Signed by: James D. Withers

Dear Sir:

In response to an August 16, 2007 Notification of Non-Compliant Appeal Brief, Appellant submits this substitute Appeal Brief in compliance with 37 CFR § 41.37, replacing the Appeal Brief previously filed on April 30, 2007. This substitute brief is identical to the April 30, 2007 Appeal Brief except for (i) the title of the substitute brief, (ii) this paragraph, (iii) the fee paragraph below, (iv) the "Table Of Contents" section below, and (v) the "Related Appeals and Interferences" section below.

This is an appeal from the Office Action mailed on November 16, 2006 finally rejecting claims 6-13, 16-24, 26-29 and 31-37.

A Notice of Appeal in this application was filed on February 15, 2007, and was received in the USPTO on February 15, 2007. A Pre-Appeal Brief Request For Review was filed on February 15, 2007. Appellant received notice in a March 29, 2007 communication from the Pre-Appeal review board indicating that the appeal process would continue.

The $500.00 fee required under 37 CFR § 41.20(b)(2) for filing an appeal brief was submitted along with the previously submitted April 30, 2007 Appeal Brief.

Appellant requests the opportunity for a personal appearance before the Board of Appeals to argue the issues of this appeal. The fee for the personal appearance will be timely paid upon receipt of the Examiner's Answer.

TABLE OF CONTENTS

REAL PARTY IN INTEREST

The real party in interest is 3M Company of St. Paul, Minnesota and its affiliate 3M Innovative Properties Company of St. Paul, Minnesota.

RELATED APPEALS AND INTERFERENCES

The assignee, the assignee's legal representatives, and the patent Appellant submit that there are no related appeals or interferences that are directly affected by or have a bearing on the Board's decision in this appeal. However, Appellant has provided a copy of a previous Decision on Appeal (Appeal No. 1997-3870) mailed on January 30, 2001 in the subject patent application in the "Related Proceedings Appendix" below.

STATUS OF CLAIMS

Claims 6-13, 16-24, 26-29 and 31-37 are pending in the present application.

Previously presented claims 1-5, 14-15, 25 and 30 have been canceled.

Claims 6-13, 16-24, 26-29 and 31-37 were rejected in a final Office Action dated November 16, 2006. Each of rejected claims 6-13, 16-24, 26-29 and 31-37 has been appealed. A clean copy of the pending claims is attached in the Claims Appendix section below.

STATUS OF AMENDMENTS

No after-final amendments have been filed.

SUMMARY OF CLAIMED SUBJECT MATTER

The claims of the present invention are directed to methods for modifying a surface of a substrate such as a step joint or other surface forming part of a vehicle body.

In independent claim 6, the claimed method comprises a method for modifying a surface of a step joint in a vehicle body (page 7, line 27 to page 8, line 17; page 38, lines 12-19) comprising the steps of: (a) placing a sheet material on the surface of the step joint (page 7, line 24 to page 8, line 11; page 38, lines 9-16), said sheet material comprising (i) a lower melt-flowable layer comprising a melt-flowable composition (page 7, line 27 to page 26, line 4), the melt-flowable layer having a thickness in the range of at least about 0.05 mm up to about 25 mm (page 10, lines 6-10), and (ii) a dimensionally stable film for controlling the melt-flow behavior of said melt-flowable composition, said film having a surface topography and being sufficiently dimensionally stable so as not to melt and flow or exhibit wrinkling when heated to a melt sealing temperature of the melt-flowable composition and subsequently cooled (page 27, line 10 to page 30, line 18), said sheet material being placed on the surface of the step joint such that said melt-flowable composition contacts said surface of the step joint (page 7, line 27 to page 8, line 17; page 38, lines 12-19); (b) heating the sheet material to a melt sealing temperature sufficient to cause said melt-flowable composition to (1) melt, flow and level out over surface imperfections or fill gaps in the step joint, as well as (2) adhere and form a bond to the step joint; and (c) allowing the sheet material and the step joint to cool while substantially retaining said surface topography of said film, wherein the melt-flowable layer is thick enough to provide sufficient material to flow and seal the step joint, the sheet material remains adhered to the step joint, and topographical or protective features are imparted to the step joint by the sheet material (page 6, lines 11-21; page 26, line 4 to page 28, line 3; Examples 48-49).

In independent claim 28, the claimed method comprises a method for modifying a surface forming part of a vehicle body (page 7, line 27 to page 8, line 17; page 38, lines 12-19) comprising the steps of: (a) placing on said surface forming part (page 7, line 27 to page 8, line 17; page 38, lines 12-19) an article comprising (i) a melt-flowable composition comprising a semi-crystalline, thermosetting epoxy-polyester blend (page 11, line 17 to page 8, line 2; page 14, line 21 to page 17, line 14) and (ii) a dimensionally stable film for controlling the melt-flow behavior of said melt-flowable composition (page 26, line 27 to page 30, line 19), such that said

melt-flowable composition contacts said surface forming part (page 7, line 27 to page 8, line 17; page 38, lines 12-19), said film comprising an oriented polyester film having a substantially smooth surface topography; (b) heating said article to cause said melt-flowable composition to flow and substantially cover a desired area of said surface forming part to adhere said article to said surface forming part, said dimensionally stable film exhibiting a downweb and crossweb shrinkage of less than about 5% and controlling the melt-flow behavior of said melt-flowable composition to substantially confine said melt-flowable composition to said desired area of said surface forming part; and (c) allowing said article to cool while substantially retaining said substantially smooth surface topography of said film (page 6, lines 11-21; page 26, line 4 to page 28, line 3; Examples 48-49).

In independent claim 29, the claimed method comprises a method for modifying a surface of a substrate (page 7, line 27 to page 8, line 17; page 38, lines 12-19) comprising the steps of: (a) placing on said surface (page 7, line 27 to page 8, line 17; page 38, lines 12-19) an article comprising (i) a melt-flowable composition (page 7, line 27 to page 26, line 3) and (ii) a dimensionally stable film for controlling the melt-flow behavior of said melt-flowable composition (page 26, line 27 to page 30, line 19), such that said melt-flowable composition contacts said surface (page 7, line 27 to page 8, line 17; page 38, lines 12-19), said film being disposed above said melt-flowable composition and comprising a substantially smooth, paint-receptive upper surface comprising a thermosetting epoxy-polyester blend (page 27, lines 20-22; page 30, lines 8-12); (b) heating said article to cause said melt-flowable composition to flow and substantially cover a desired area of said surface to adhere said article to said surface, said dimensionally stable film controlling the melt-flow behavior of said melt-flowable composition to substantially confine said melt-flowable composition to said desired area of said surface; and (c) allowing said article to cool while substantially retaining said substantially smooth surface topography of said film (page 6, lines 11-21; page 26, line 4 to page 28, line 3; Examples 48-49).

GROUNDS OF REJECTION TO BE REVIEWED ON APPEAL

The following grounds of rejection are to be reviewed on appeal:

1) Whether claims 6, 8, 16-17, 19-24 and 34 are anticipated by Japanese Patent Application No. 3-273975 (hereinafter, "JP'975") under 35 U.S.C. §102(b).

2) Whether claims 6, 8, 12-13, 16-17, 19-24 and 34 are unpatentable under 35 U.S.C. §103(a) in view of JP'975.

3) Whether claims 7, 9 and 28 are unpatentable under 35 U.S.C. §103(a) in view of JP'975, and further in view of U.S. Patent No. 4,822,683 to Schappert et al. (hereinafter, "Schappert") and U.S. Patent No. 4,920,182 to Manser et al. (hereinafter, "Manser").

4) Whether claims 10-11 are unpatentable under 35 U.S.C. §103(a) in view of JP'975, and further in view of U.S. Patent No. 4,877,679 to Leatherman et al. (hereinafter, "Leatherman1") and U.S. Patent No. 4,892,779 to Leatherman et al. (hereinafter, "Leatherman2").

5) Whether claims 18, 29, 31 and 36-37 are unpatentable under 35 U.S.C. §103(a) in view of JP'975, and further in view of Manser and Japanese Patent Application No. 58-217516 (hereinafter, "JP'516").

6) Whether claim 32 is unpatentable under 35 U.S.C. §103(a) in view of JP'975, and further in view of European Patent Application No. 0 384 598 A1 (hereinafter, "EP'598").

7) Whether claims 26-27 and 33 are unpatentable under 35 U.S.C. §103(a) in view of JP'975, and further in view of Manser and Japanese Patent Application No. 1-152049 A (hereinafter, "JP'049").

8) Whether claim 35 is unpatentable under 35 U.S.C. §103(a) in view of JP'975, and further in view of Schappert, Manser and JP'049.

9) Whether claims 6, 8, 12-13, 16-17, 20-24, 26-27, and 33-34 are unpatentable under 35 U.S.C. §103(a) in view of JP'049 in view of Shimizu and U.S. Patent No. 5,162,149 to Reaney (hereinafter, "Reaney").

10) Whether claims 7, 9, 28 and 35 are unpatentable under 35 U.S.C. §103(a) in view of JP'049 in view of Shimizu and Reaney, and further in view of Schappert and Manser.

11) Whether claims 10-11 are unpatentable under 35 U.S.C. §103(a) in view of JP'049 in view of Shimizu and Reaney, and further in view of Leatherman1 and Leatherman2.

12) Whether claims 18, 29, 31 and 36-37 are unpatentable under 35 U.S.C. §103(a) in view of JP'049 in view of Shimizu and Reaney, and further in view of Manser and JP'516.

13) Whether claim 19 is unpatentable under 35 U.S.C. §103(a) in view of JP'049 in view of Shimizu and Reaney, and further in view of JP'975.

14) Whether claim 32 is unpatentable under 35 U.S.C. §103(a) in view of JP'049 in view of Shimizu and Reaney, and further in view of EP'598.

15) Whether claims 29, 31 and 36-37 are unpatentable under 35 U.S.C. §103(a) in view of U.S. Patent No. 2,739,919 to Artzt (hereinafter, "Artzt") in view of Manser and JP'516.

ARGUMENTS

I. REJECTION UNDER §102(b) OVER JP'975

Claims 6, 8, 16-17, 19-24 and 34 stand rejected under 35 U.S.C. §102(b) as being anticipated by Japanese Patent Application No. 3-273975 (hereinafter, "JP'975").

A. CLAIMS 6, 8, 16-17, 19-20, AND 34

Appellant's claimed invention, as embodied in independent claim 6, is directed to a method for modifying a surface of a step joint in a vehicle body as described above. Claims 8, 16-17, 19-20, and 34 depend from independent claim 6 and recite additional claim features.

1. Art Relied Upon By Examiner Johnstone

a. JP'975

JP'975 is directed to a pressure sensitive adhesive tape (4) comprising a meltable upper layer 4a and a lower pressure sensitive adhesive (PSA) layer 4b. The tape 4 is used to provide rust proofing and to cover a joint seam between adjacent metal plates. JP'975 discloses suitable materials for upper layer 4a are a nylon 12 hot-melt film, an EVA (ethylene vinyl oxide) hot-melt film or a urethane film. See, page 6, lines 13-18 of the English translation identified as "Lang. Serv. Ident. No. 177" (hereinafter, referred to as "the English translation"). JP'975 also discloses suitable materials for lower PSA layer 4b including an uncured epoxy thermosetting resin adhesive (page 6, lines 19-20 of the English translation), or a polyester, urethane or acrylic uncured thermosetting resin adhesive (page 6, lines 21-22 of the English translation).

JP'975 further discloses a method of applying tape 4 onto an automobile seam that includes using the lower PSA layer 4b to hold the tape in place, even for vertical applications (see page 8, lines 15-16 of the English translation of JP'975), and then baking tape 4 at a temperature that causes the entire tape 4 to soften. See, page 8, lines 7-8 of the English translation, where JP'975 specifically discloses:

> The tape *4* was once softened at the time of the baking process, but it was hardened when it becomes ordinary temperature.

2. The Anticipatory Rejection Based on JP'975

In order to establish anticipation, a prior art reference must disclose every feature

of the claimed invention, see *Finnigan Corp. v. International Trade Commission*, 180 F.3d 1354, 1365, 51 USPQ2d 1001, 1009 (Fed. Cir. 1999).

JP'975 fails to disclose any method comprising heating a multi-layered sheet material that includes a dimensionally stable film on top of a melt-flowable composition. JP'975 also fails to disclose such a method that comprises heating Appellant's specifically recited sheet material to a melt sealing temperature sufficient to (i) cause a lower melt-flowable layer, comprising the melt-flowable composition, of the sheet material to melt, flow and level out over surface imperfections or fill gaps in a step joint, while (ii) the dimensionally stable film on the lower melt-flowable layer remains sufficiently dimensionally stable at the melt sealing temperature so as not to melt and flow or exhibit wrinkling.

On page 2, lines 16-18 of the November 16, 2006 final Office Action, Examiner Johnstone argues that JP'975 discloses a baking step during which tape 4 (i.e., the entire tape, both upper layer 4a and lower layer 4b) "softens (but does not melt) during baking but hardens after cooling to ordinary temperature (translation p. 8)." Due to the disclosure of a "baking process" in JP'975, Examiner Johnstone concludes that JP'975 discloses the recited heating step of independent claim 6. Appellant disagrees.

There simply is no disclosure, teaching or suggestion in JP'975 that the disclosed baking step is a heating step in which the disclosed tape (i.e., tape 4) is heated to a baking temperature sufficient to cause (1) the lower layer 4b to "melt, flow and level out over surface imperfections or fill gaps in a step joint," while (2) the upper layer 4a remains sufficiently dimensionally stable at the baking temperature so as "not to melt and flow or exhibit wrinkling." Further, there simply is no disclosure, teaching or suggestion in JP'975 to use a dimensionally stable film as recited in Appellant's independent claim 6 and as defined in Appellant's original specification.

Given that JP'975 fails to disclose the above-identified claim features of independent claim 6, the disclosure of JP'975 cannot anticipate independent claim 6 or claims 8, 16-17, 19-24, and 34, which depend from independent claim 6.

Appellant discloses on page 28, lines 10-14 what is meant by a "dimensionally stable film":

By dimensionally stable, it is meant that at the films have sufficient integrity

> at the temperatures of use, and particularly, during the heat curing cycle of the melt sealing layer at about 120C to 200C for 20 to 40 minutes, so they do not melt and flow. Also the films do not exhibit wrinkling when they are heated to the melt sealing temperature and subsequently cooled.

Further, Appellant clearly distinguishes the recited dimensionally stable film from other possible sheet material components/layers that might be used in addition to (i) the recited melt-flowable composition and (ii) the recited dimensionally stable film. Such other possible sheet material components/layers include, but are not limited to another film having less stability than the dimensionally stable film, such as an **EVA (ethylene vinyl alcohol) film** (page 29, lines 21-22) or **a hot melt adhesive layer** (page 29, lines 23-27).

On page 3, lines 1-3 of the November 16, 2006 final Office Action, Examiner Johnstone appears to realize that the disclosure of JP'975 does indeed fail to disclose Appellant's claimed method as recited in independent claim 6 by making an inherency argument, specifically stating:

> Note that with respect to any inherent feature discussed above, the reasoning supplied in the discussion provides sufficient basis for the examiner to infer that the feature is inherent; burden is therefore shifted to applicants to show lack of inherency (see for example the case law cited in MPEP 2112-2112.02).

Appellant notes that the referenced case law specifically states that "To establish inherency, the extrinsic evidence 'must make clear that the missing descriptive matter is necessarily present in the thing described in the reference, and that it would be so recognized by persons of ordinary skill. **Inherency, however, may not be established by probabilities or possibilities.** The mere fact that a certain thing may result from a given set of circumstances is not sufficient.'" *In re Robertson*, 169 F.3d 743, 745, 49 USPQ2d 1949, 1950-51 (Fed. Cir. 1999). (Emphasis added.) Also, "[a]n invitation to investigate is not an inherent disclosure" where a prior art reference "discloses no more than a broad genus of potential applications of its discoveries." *Metabolite Labs., Inc. v. Lab. Corp. of Am. Holdings*, 370 F.3d 1354, 1367, 71 USPQ2d 1081, 1091 (Fed. Cir. 2004) (explaining that "[a] prior art reference that discloses a genus still does not inherently disclose all species within that broad category" but must be

examined to see if a disclosure of the claimed species has been made or whether the prior art reference merely invites further experimentation to find the species.

Further, "In relying upon the theory of inherency, the examiner must provide a basis in fact and/or technical reasoning to reasonably support the determination that the allegedly inherent characteristic necessarily flows from the teachings of the applied prior art." *Ex parte Levy,* 17 USPQ2d 1461, 1464 (Bd. Pat. App. & Inter. 1990) (emphasis in original). Appellant respectfully submits that Examiner Johnstone has not provided any objective evidence or cogent technical reasoning to support the position that the broad description of a "baking process" in JP'975 is a heating step utilizing a baking temperature sufficient to cause (1) the lower layer 4b of the tape 4 to "melt, flow and level out over surface imperfections or fill gaps in a step joint," while (2) the upper layer 4a of the tape 4 remains sufficiently dimensionally stable at the baking temperature "so as not to melt and flow or exhibit wrinkling" as required in Appellant's independent claim 6. As discussed above, the "baking process" disclosed in JP'975 softens the entire tape 4, not just one layer of the disclosed tape. Appellant respectfully submits that Examiner Johnstone has merely relied on the possibility that the disclosed tape and some possible baking temperature could behave in a manner as recited in Appellant's independent claim 6.

For at least the reasons given above, the disclosure of JP'975 fails to anticipate Appellant's claimed method as recited in independent claim 6. Since claims 8, 16-17, 19-20, and 34 depend from independent claim 6 and recite additional claim features, the disclosure of JP'975 fails to anticipate Appellant's claimed method as recited in dependent claims 8, 16-17, 19-20, and 34. Accordingly, withdrawal of this rejection is respectfully requested.

B. CLAIMS 21-24

Appellant's claimed invention, as embodied in dependent claims 21-24, is directed to the method as recited in Appellant's independent claim 6, wherein the dimensionally stable film of the sheet material exhibits a downweb and crossweb shrinkage of less than about 5% (less than about 3%, less than about 2%, or less than about 1%) during the heating step.

1. The Anticipatory Rejection Based on JP'975

As discussed above, JP'975 fails to disclose the above-identified claim features recited in Appellant's independent claim 6. In addition, it should be noted that JP'975 fails to also disclose, teach or suggest a sheet material, or a method comprising heating a sheet material, comprising a dimensionally stable film of the sheet material that exhibits a downweb and crossweb shrinkage of less than about 5% (less than about 3%, less than about 2%, or less than about 1%) during the heating step. JP'975 also fails to disclose, teach or suggest a method comprising heating such a sheet material to a melt sealing temperature sufficient to (i) cause the melt-flowable composition of the sheet material to melt, flow and level out over surface imperfections or fill gaps in a step joint, while (ii) the dimensionally stable film remains sufficiently dimensionally stable at the melt sealing temperature so as not to melt and flow or exhibit wrinkling, and exhibits the claimed downweb and crossweb shrinkage during the heating step.

Given that the disclosure of JP'975 fails to disclose the above-identified claim features of dependent claims 21-24, the disclosure of JP'975 cannot anticipate dependent claims 21-24.

For at least the reasons given above, the disclosure of JP'975 fails to anticipate Appellant's claimed method as recited in dependent claims 21-24. Accordingly, withdrawal of this rejection is respectfully requested.

II. REJECTION UNDER 35 U.S.C. §103(a) IN VIEW OF JP'975

Claims 6, 8, 12-13, 16-17, 19-24, and 34 stand rejected under 35 U.S.C. §103(a) as being unpatentable over JP'975. Reversal of this rejection is respectfully requested.

A. CLAIMS 6, 8, 16-17, 19-20 AND 34

Appellant's claimed invention, as embodied in independent claim 6, is directed to a method for modifying a surface of a step joint in a vehicle body as described above.

Claims 8, 16-17, 19-20 and 34 depend from independent claim 6 and recite additional claim features.

1. The Obviousness Rejection Based on JP'975

On page 3, lines 16-22 of the November 16, 2006 final Office Action, Examiner Johnstone appears to suggest that it would have been obvious to one skilled in the art, given the teaching of JP'975, to substitute a dimensionally stable film for the upper layer 4a of tape 4. In particular, Examiner Johnstone states:

> ..... and by making the base film dimensionally stable with no substantial shrinkage during the baking step in order to provide the required even appearance of the coating films.

Appellant respectfully submits that there is no disclosure, teaching or suggestion in JP'975 that would have motivated one skilled in the art to substitute a dimensionally stable film for upper layer 4a in the disclosed tape 4 of JP'975. The desirability of such a proposed modification of the disclosed tape 4 of JP'975 is not present in the teaching of JP'975. If JP'975 wanted to use a dimensionally stable film, as this term is defined in the present application, JP'975 would not have taught to make the upper layer 4a using hot melt adhesives. Appellant respectfully submits that the only motivation for modifying the tapes 4 taught by JP'975, as suggested by Examiner Johnstone, has been gleaned from Appellant's patent application, not from what is taught, disclosed or suggested in JP'975.

For at least the reasons given above, Appellant respectfully submits that the proposed modification of the teaching of JP'975 is improper, and that a *prima facie* case of obviousness has not been made with regard to the rejection of independent claim 6 in view of the teaching of JP'975. Since claims 8, 16-17, 19-20 and 34 depend from independent claim 6 and recite additional claim features, the teaching of JP'975 also fails to make obvious Appellant's claimed invention as embodied in dependent claims 8, 16-17, 19-20 and 34. Accordingly, reversal of this rejection is respectfully requested.

B. CLAIMS 12-13

Appellant's claimed invention, as embodied in dependent claims 12-13, is directed to the method as recited in Appellant's independent claim 6, wherein the dimensionally stable film of the sheet material comprises (i) an oriented polyester film (claim 12) or (ii) oriented polyethylene terephthalate (claim 13).

1. The Obviousness Rejection Based on JP'975

Examiner Johnstone argues that it would have been obvious to modify upper layer 4a of tape 4 in JP'975 simply because other components that could possibly be used are "notoriously well-known." See, for example, beginning on page 3, line 22 of the November 16, 2006 final Office Action where Examiner Johnstone argues the substitution of a MYLAR film for upper layer 4a in the disclosed tape of JP'975 by stating:

> As to claims 12 and 13, oriented polyethylene terephthalate film such as MYLAR is notoriously well known to have dimensional stability, therefore it would have been obvious to one of ordinary skill in the art to use such notoriously well known dimensionally stable oriented polyethylene terephthalate film as the hot-melt base film in the above method.

Appellant respectfully submits that the cited art (i.e., JP'975) must at least teach or suggest the desirability of Examiner Johnstone's proposed modification (i.e., the use of a dimensionally stable film), before such a modification can be considered obvious. See, for example, the statement of the Court in *In re Mills*, 916 F.2d 680, 16 USPQ2d 1430 (Fed. Cir. 1990), "The mere fact that references can be combined or modified does not render the resultant combination obvious unless the prior art also suggests the desirability of the combination. See also *In re Fritch*, 972 F.2d 1260, 23 USPQ2d 1780 (Fed. Cir. 1992). The fact that MYLAR is well known to be dimensionally stable does not provide a reason to motivate one of ordinary skill in the art to replace the JP'974 upper layer 4b with a MYLAR film. Appellant respectfully submits that Examiner Johnstone has resorted to an "obvious-to-try" reasoning in formulating the present obviousness rejection, and such "obvious-to-try" rejections are improper.

For at least the reasons given above, Appellant respectfully submits that the proposed modification of the teaching of JP'975 is improper, and that a *prima facie* case of obviousness has not been made with regard to the rejection of dependent claims 12-13 in view of the teaching of JP'975. Accordingly, reversal of this rejection is respectfully requested.

C. CLAIMS 21-24

Appellant's claimed invention, as embodied in dependent claims 21-24, is directed to the method as recited in Appellant's independent claim 6, wherein the dimensionally stable

film of the sheet material exhibits a downweb and crossweb shrinkage of less than about 5% (less than about 3%, less than about 2%, or less than about 1%) during the heating step.

1. The Obviousness Rejection Based on JP'975

As discussed above, JP'975 fails to disclose, teach or suggest the above-identified claim features recited in Appellant's dependent claims 21-24, as well as independent claim 6. Appellant respectfully submits that there is no disclosure, teaching or suggestion in JP'975, and Examiner Johnstone has not provided any, that would have motivated one skilled in the art to substitute a dimensionally stable film having the recited downweb and crossweb shrinkage properties for the upper layer 4a in tape 4 of JP'975. The desirability of such a proposed substitution and modification of tape 4 can not be found in JP'975. The only motivation for such a modification of the JP'975 tape 4 is from Appellant's application, not from the cited prior art.

For at least the reasons given above, Appellant respectfully submits that the proposed modification of the teaching of JP'975 is improper, and that a *prima facie* case of obviousness has not been made with regard to the rejection of dependent claims 21-24 in view of the teaching of JP'975. Accordingly, reversal of this rejection is respectfully requested.

III. REJECTION UNDER 35 U.S.C. §103(a) IN VIEW OF JP'975, SCHAPPERT AND MANSER

Claims 7, 9 and 28 stand rejected under 35 U.S.C. §103(a) as being unpatentable over JP'975, and further in view of U.S. Patent No. 4,822,683 to Schappert et al. (hereinafter, "Schappert") and U.S. Patent No. 4,920,182 to Manser et al. (hereinafter, "Manser"). Reversal of this rejection is respectfully requested.

A. CLAIM 7

Claim 7 depends from independent claim 6 and recites that the melt-flowable composition comprises a thermoplastic composition.

1. Additional Art Relied Upon By Examiner Johnstone

a. Schappert

The teaching of Schappert is directed to curable adhesive compositions containing an epoxy component and an "effectively thermoplastic polyester" component. See, Schappert,

column 3, lines 9-31.

b. Manser

The teaching of Manser is directed to compositions containing an epoxy component (A), a metallocene complex (B), and a flexible polyester (C).

2. <u>The Obviousness Rejection Based on JP'975 In View of Schappert and Manser</u>

JP'975 fails to disclose, teach or suggest the use of a thermoplastic material in lower adhesive layer 4b of disclosed tape 4.

Examiner Johnstone suggests that one skilled in the art, given the teaching of JP'975, would have (1) sought out the teachings of Schappert and Manser directed to epoxy compositions containing a thermoplastic component, and (2) substituted the composition of Schappert or Manser for the disclosed adhesive compositions of JP'975 simply because the disclosed blends of Schappert and Manser are well known in the art. See, for example, page 4, lines 12-19 of the November 16, 2006 final Office Action. Appellant disagrees.

Appellant respectfully submits that there must be some suggestion or motivation in JP'975 to (1) seek out the teachings of Schappert and Manser, and then (2) substitute the composition of Schappert or Manser for the disclosed adhesive composition of JP'975. However, the teachings of JP'975 do not, in any way, suggest the need or desire to substitute a thermoplastic material for the disclosed uncured thermosettable adhesive compositions taught by JP'975 for use in lower adhesive layer 4b. Appellant respectfully submits that the only motivation for so modifying lower adhesive layer 4b of JP'975 as suggested by Examiner Johnstone has been gleaned from Appellant's own application, not from what is taught, disclosed or suggested in the art of record.

For at least the reasons given above, Appellant respectfully submits that the proposed combination of the teaching of JP'975 with the teaching of Schappert and the teaching of Manser and the subsequent modification of the teaching of JP'975 is improper, and that a *prima facie* case of obviousness has not been made with regard to the rejection of dependent claim 7 in view of the proposed combination of the teaching of JP'975 with the teaching of

Schappert and the teaching of Manser. Accordingly, reversal of this rejection is respectfully requested.

B. CLAIM 9

Claim 9 depends from independent claim 6 and recites that the melt-flowable composition comprises a semi-crystalline, thermosetting composition comprising an epoxy-polyester blend.

1. The Obviousness Rejection Based on JP'975 In View of Schappert and Manser

JP'975 fails to disclose, teach or suggest the use of a semi-crystalline, thermosetting composition comprising an epoxy-polyester blend in lower adhesive layer 4b of disclosed tape 4. The art of record does not suggest to one skilled in the art the need or desire to modify the specifically formulated tapes of JP'975 as suggested by Examiner Johnstone. It is respectfully submitted that Examiner Johnstone has formulated an "obvious-to-try" rejection based on hindsight reasoning in an attempt to reconstruct Appellant's claimed invention as embodied in claim 9.

For at least these reasons, Appellant respectfully submits that the proposed combination of select portions of the teaching of JP'975, select portions of the teaching of Schappert and select portions of the teaching of Manser is improper, and fails to make obvious Appellant's claimed invention as embodied in claims 10-11. Accordingly, reversal of this rejection is respectfully requested.

C. CLAIM 28

Appellant's claimed invention, as embodied in independent claim 28, is directed to a method for modifying a surface forming part of a vehicle body as described above in the "Summary of Claimed Subject Matter" section of this Brief.

1. The Obviousness Rejection Based on JP'975 In View of Schappert and Manser

JP'975 fails to disclose, teach or suggest (1) a method utilizing an article

comprising (i) a melt-flowable composition comprising a semi-crystalline, thermosetting epoxy-polyester blend and (ii) a dimensionally stable film comprising an oriented polyester film having a substantially smooth surface topography; or (2) a method comprising heating the above-described article to cause the epoxy-polyester blend to flow and substantially cover a desired area of the surface forming part to adhere the article to the surface forming part, while the dimensionally stable oriented polyester film exhibits a downweb and crossweb shrinkage of less than about 5% and controls the melt-flow behavior of the epoxy-polyester blend. There simply is no disclosure, teaching or suggestion in JP'975 of (1) the above-described method steps, (2) the use of a dimensionally stable film in the teaching of JP'975, and especially the use of an oriented polyester film as the dimensionally stable film, and (3) the use of a semi-crystalline, thermosetting epoxy-polyester blend as lower adhesive layer 4b in the teaching of JP'975 as recited in Appellant's independent claim 28.

For reasons similar to those given above, the art of record does not suggest to one skilled in the art to (1) combine select portions of the teaching of JP'975 with select portions of the teaching of Schappert and the teaching of Manser, (2) substitute a dimensionally stable oriented polyester film for upper layer 4a in the disclosed tape 4 of JP'975, and then (3) substitute a semi-crystalline, thermosetting epoxy-polyester blend for lower adhesive layer 4b in the disclosed tape 4 of JP'975 as suggested by Examiner Johnstone. It is respectfully submitted that Examiner Johnstone has attempted to reconstruct Appellant's claimed invention as embodied in claim 9 based on hindsight reasoning. As the Board is aware, "One cannot use hindsight reconstruction to pick and choose among isolated disclosures in the prior art to deprecate the claimed invention", *In re Fine*, 837 F.2d 1071, 1075, 5 USPQ2d 1596, 1600 (Fed. Cir. 1988).

For at least these reasons, Appellant respectfully submits that the proposed combination of select portions of the teaching of JP'975, select portions of the teaching of Schappert and select portions of the teaching of Manser is improper, and fails to make obvious Appellant's claimed invention as embodied in claim 9. Accordingly, reversal of this rejection is respectfully requested.

IV. REJECTION UNDER 35 U.S.C. §103(a) IN VIEW OF JP'975, LEATHERMAN1 AND LEATHERMAN2

Claims 10-11 stand rejected under 35 U.S.C. §103(a) as being unpatentable over JP'975, and further in view of U.S. Patent No. 4,877,679 to Leatherman et al. (hereinafter, "Leatherman1") and U.S. Patent No. 4,892,779 to Leatherman et al. (hereinafter, "Leatherman2"). Reversal of this rejection is respectfully requested.

A. CLAIMS 10-11

Claims 10-11 depends from independent claim 6 and recites that the dimensionally stable film comprises an ultra-high molecular weight polyolefin (claim 10) or an ultra-high molecular weight microporous polyolefin (claim 11).

1. Additional Art Relied Upon By Examiner Johnstone

a. Leatherman1

The teaching of Leatherman1 is directed to multilayer articles comprising at least one layer of porous material bonded to at least one layer of microporous material. See, Leatherman1, column 1, lines 11-54. In column 14, lines 17-26, Leatherman1 discloses various uses of the disclosed multilayer articles including, but not limited to, filter applications, wiper applications, etc.

b. Leatherman2

The teaching of Leatherman2 is also directed to multilayer articles comprising at least one layer that is impervious to the passage of gas and bacteria fusion bonded to at least one layer of microporous material. See, Leatherman2, column 1, lines 10-33. In column 14, lines 19-48, Leatherman2 discloses various uses of the disclosed multilayer articles including, but not limited to, labels for polyolefin containers, gaskets, components in breathable packages, etc.

2. The Obviousness Rejection Based on JP'975 In View of Leatherman1 and Leatherman2

JP'975 fails to disclose, teach or suggest (1) a method step utilizing an article comprising (i) a melt-flowable composition and (ii) a dimensionally stable film comprising an ultra-high molecular weight polyolefin; and (2) a method comprising heating the above-described

article to a melt sealing temperature so as to cause the melt-flowable composition to melt, flow and level out over surface imperfections or fill gaps in a step joint, as well as adhere and form a bond to the step joint, while the dimensionally stable film comprising an ultra-high molecular weight polyolefin remains dimensionally stable at the melt sealing temperature.

For reasons similar to those given above, the art of record does not suggest to one skilled in the art to (1) combine select portions of the teaching of JP'975 with the teaching of Leatherman1 and the teaching of Leatherman2, and then (2) substitute a dimensionally stable film comprising an ultra-high molecular weight polyolefin for upper layer 4a in the disclosed tape 4 of JP'975 as suggested by Examiner Johnstone. It is respectfully submitted that Examiner Johnstone has formulated an "obvious-to-try" rejection based on hindsight reasoning in an attempt to reconstruct Appellant's claimed invention as embodied in claims 10-11.

For at least these reasons, Appellant respectfully submits that the proposed combination of select portions of the teaching of JP'975, select portions of the teaching of Leatherman1 and select portions of the teaching of Leatherman1 is improper, and fails to make obvious Appellant's claimed invention as embodied in claims 10-11. Accordingly, reversal of this rejection is respectfully requested.

V. REJECTION UNDER 35 U.S.C. §103(a) IN VIEW OF JP'975, MANSER AND JP'516

Claims 18, 29, 31 and 36-37 stand rejected under 35 U.S.C. §103(a) as being unpatentable over JP'975, and further in view of Manser and Japanese Patent Application No. 58-217516 (hereinafter, "JP'516"). Reversal of this rejection is respectfully requested.

A. CLAIMS 18, 29 AND 36-37

Claim 18 depends from independent claim 6 and recites that the dimensionally stable film further comprises a substantially smooth, paint-receptive surface comprising a thermosetting epoxy-polyester blend.

Independent claim 29 is directed to a method for modifying a surface of a substrate as described above in the "Summary of Claimed Subject Matter" section of this Brief.

Claims 36-37 depend from independent claim 29 and further recite that the claimed method further comprising applying paint to the paint-receptive upper surface (claim 36), wherein the paint comprises an epoxy containing paint (claim 37).

1. Additional Art Relied Upon By Examiner Johnstone

a. JP'516

The teaching of JP'516 is directed to a paint film comprising (i) at least one epoxy resin, (ii) a thermoplastic saturated polyester resin, and (iii) a photoinitiator. See, the English Abstract of JP'516.

2. The Obviousness Rejection Based on JP'975 In View of Manser and JP'516

The teaching of JP'975 fails to disclose, teach or suggest (1) a method step utilizing an article comprising (i) a melt-flowable composition and (ii) a dimensionally stable film comprising a substantially smooth, paint-receptive upper surface comprising a thermosetting epoxy-polyester blend; and (2) a method comprising heating the above-described article to cause the melt-flowable composition to flow and substantially cover a desired area of a surface to adhere the article to the surface, while the dimensionally stable film controls the melt-flow behavior of the melt-flowable composition to substantially confine the melt-flowable composition to the desired area of the surface.

For reasons similar to those given above in sections II(A)(2), II(B)(2) and III(C)(2) of this Brief, the art of record does not suggest to one skilled in the art to (1) combine select portions of the teaching of JP'975 with the teaching of Manser and the teaching of JP'516, and then (2) substitute a dimensionally stable film comprising a substantially smooth, paint-receptive upper surface comprising a thermosetting epoxy-polyester blend for upper layer 4a in the disclosed tape 4 of JP'975 as suggested by Examiner Johnstone. It is respectfully submitted that Examiner Johnstone has formulated an "obvious-to-try" rejection based on hindsight reasoning in an attempt to reconstruct Appellant's claimed invention as embodied in claims 18 and 29.

For at least these reasons, Appellant respectfully submits that the proposed combination of select portions of the teaching of JP'975, select portions of the teaching of

Manser and select portions of the teaching of JP'516 is improper, and fails to make obvious Appellant's claimed invention as embodied in claims 18, 29 and 36-37. Accordingly, reversal of this rejection is respectfully requested.

B. CLAIM 31

Claim 31 depends from independent claim 29 and recites that the dimensionally stable film comprises an oriented polyester film.

1. The Obviousness Rejection Based on JP'975 In View of Manser and JP'516

For reasons similar to those given above, the art of record does not suggest to one skilled in the art to (1) combine select portions of the teaching of JP'975 with the teaching of Manser and the teaching of JP'516, and then (2) substitute a dimensionally stable film comprising (i) an oriented polyester film having (ii) a substantially smooth, paint-receptive upper surface comprising a thermosetting epoxy-polyester blend for upper layer 4a in the disclosed tape 4 of JP'975 as suggested by Examiner Johnstone. It is respectfully submitted that Examiner Johnstone has formulated an "obvious-to-try" rejection based on hindsight reasoning in an attempt to reconstruct Appellant's claimed invention as embodied in claim 31.

Further, it should be noted that the proposed combination of select portions of the teaching of JP'975, select portions of the teaching of Manser and select portions of the teaching of JP'516, even if proper (and Appellant submits that the proposed combination is improper), fails to teach or suggest the use of a dimensionally stable film comprising (i) an oriented polyester film having (ii) a substantially smooth, paint-receptive upper surface comprising a thermosetting epoxy-polyester blend as recited in dependent claim 31.

For at least these reasons, Appellant respectfully submits that the proposed combination of select portions of the teaching of JP'975, select portions of the teaching of Manser and select portions of the teaching of JP'516 is improper, and fails to make obvious Appellant's claimed invention as embodied in claim 31. Accordingly, reversal of this rejection is respectfully requested.

VI. REJECTION UNDER 35 U.S.C. §103(a) IN VIEW OF JP'975 AND EP'598

Claim 32 stands rejected under 35 U.S.C. §103(a) as being unpatentable over JP'975, and further in view of European Patent Application No. 0 384 598 A1 (hereinafter, "EP'598"). Reversal of this rejection is respectfully requested.

A. CLAIM 32

Claim 32 depends from independent claim 6 and recites that the melt-flowable composition comprises a plurality of melt-flowable layers in which the melt-flow properties of the individual layers are tailored such that the layers cooperate with each other to seal a step joint.

1. Additional Art Relied Upon By Examiner Johnstone

a. EP'598

The teaching of EP'598 is directed to dual-functional adhesive tapes comprising (i) a layer of heat-activatable polyolefin adhesive and (ii) an acrylic pressure-sensitive adhesive adhered to the layer of heat-activatable polyolefin adhesive.

2. The Obviousness Rejection Based on JP'975 In View of EP'598

JP'975 fails to disclose, teach or suggest (1) a method step utilizing an article comprising (i) a plurality of melt-flowable layers in combination with (ii) a dimensionally stable film; and (2) a method comprising heating the above-described article to cause the plurality of melt-flowable layers to flow and substantially cover a desired area of a surface to adhere the article to the surface, while the dimensionally stable film controls the melt-flow behavior of the melt-flowable composition to substantially confine the melt-flowable composition to the desired area of the surface.

For reasons similar to those given above in sections II(A)(2), II(B)(2) and III(C)(2) of this Brief, the art of record does not suggest to one skilled in the art to (1) combine select portions of the teaching of JP'975 with select portions of the teaching of EP'598, and then (2) substitute a plurality of melt-flowable layers for lower adhesive layer 4b in the disclosed tape 4 of JP'975 as suggested by Examiner Johnstone. It is respectfully submitted that Examiner

Johnstone's rejection is based on hindsight reasoning in an attempt to reconstruct Appellant's claimed invention as embodied in claim 32.

For at least these reasons, Appellant respectfully submits that the proposed combination of select portions of the teaching of JP'975 and select portions of the teaching of EP'598 is improper, and fails to make obvious Appellant's claimed invention as embodied in claim 32. Accordingly, reversal of this rejection is respectfully requested.

VII. REJECTION UNDER 35 U.S.C. §103(a) IN VIEW OF JP'975, MANSER AND JP'049

Claim 26-27 and 33 stand rejected under 35 U.S.C. §103(a) as being unpatentable over JP'975, and further in view of Manser and Japanese Patent Application No. 1-152049 A (hereinafter, "JP'049"). Reversal of this rejection is respectfully requested.

A. CLAIMS 26-27

Claims 26-27 depend from independent claim 6 and recite that the surface of the step joint forms part of a roof ditch (claim 26), and the dimensionally stable film comprises a substantially smooth, paint-receptive surface, and the method further comprises applying paint to the paint-receptive surface (claim 27).

1. Additional Art Relied Upon By Examiner Johnstone

a. JP'049

The teaching of JP'049 is directed to a method of sealing a roof ditch on a vehicle. The disclosed method comprises (1) placing rod 6 comprising a single layer of melt-flowable thermosetting resin material into a roof ditch, and (2) heating rod 6 so as to cause the single layer of melt-flowable thermosetting resin material to flow within the roof ditch and seal the roof ditch. See, for example, FIGS. 2a-2c.

2. The Obviousness Rejection Based on JP'975 In View of Manser and JP'049

For reasons similar to those given above in sections II(A)(2), II(B)(2) and III(C)(2) of this Brief, the art of record does not disclose, teach or suggest Appellant's claimed invention as embodied in independent claim 6.

Further, it should be noted that the teaching of JP'049 specifically discloses a method of sealing a step joint in a roof ditch that teaches away from the proposed method as suggested by Examiner Johnstone. It is not clear to Appellant why one skilled in the art would ignore critical components of the teaching of JP'049 directed to the use of a single layer of melt-flowable thermosetting resin material (e.g., rod 6) to seal a step joint in a roof ditch, and instead utilize Examiner Johnstone's proposed multi-layered tape to seal a step joint in a roof ditch. As the Board is aware, "It is impermissible within the framework of section 103 to pick and choose from any one reference only so much of it as will support a given position, to the exclusion of other parts necessary to the full appreciation of what such reference fairly suggests to one of ordinary skill in the art", *Bausch & Lomb, Inc. v. Barnes-Hind/Hydrocurve, Inc.*, 796 F.2d 443, 447, 230 USPQ 416, 419 (Fed. Cir. 1986) (quoting *In re Wesslau*, 353 F.2d 238, 241, 147 USPQ 391, 393 (CCPA 1965)). Appellant respectfully submits that one skilled in the art, given the teaching of JP'049, would use a single layer of melt-flowable thermosetting resin material (e.g., rod 6) to seal a step joint in a roof ditch, not Examiner Johnstone's proposed multi-layered tape.

For at least these reasons, Appellant respectfully submits that the proposed combination of select portions of the teaching of JP'975, select portions of the teaching of Manser and select portions of the teaching of JP'049 is improper, and fails to make obvious Appellant's claimed invention as embodied in claims 26-27. Accordingly, reversal of this rejection is respectfully requested.

B. CLAIM 33

Claim 33 depends from independent claim 6 and recites that the melt-flowable layer has a thickness in the range of from 0.20 mm to 10 mm.

1. The Obviousness Rejection Based on JP'975 In View of Manser and JP'049

For reasons similar to those given above, the art of record does not suggest to one skilled in the art to (1) combine select portions of the teaching of JP'975 with select portions of the teaching of Manser and select portions of the teaching of JP'049, (2) substitute a dimensionally stable film for upper layer 4a in the disclosed tape 4 of JP'975 to form a modified

tape 4, (3) increase the thickness of the adhesive layer of the modified tape 4 to fall within a thickness range of from 0.20 mm to 10 mm[1], and then (4) use the modified tape 4 with a thicker adhesive layer in place of rod 6 in the teaching of JP'049 to seal a step joint in a roof ditch as suggested by Examiner Johnstone. It is respectfully submitted that Examiner Johnstone's rejection is based on hindsight reasoning in an attempt to reconstruct Appellant's claimed invention as embodied in claim 33.

For at least these reasons, Appellant respectfully submits that the proposed combination of select portions of the teaching of JP'975, select portions of the teaching of Manser and select portions of the teaching of JP'049 is improper, and fails to make obvious Appellant's claimed invention as embodied in claim 33. Accordingly, reversal of this rejection is respectfully requested.

VIII. REJECTION UNDER 35 U.S.C. §103(a) IN VIEW OF JP'975, SCHAPPERT, MANSER AND JP'049

Claim 35 stands rejected under 35 U.S.C. §103(a) as being unpatentable over JP'975, and further in view of Schappert, Manser and JP'049. Reversal of this rejection is respectfully requested.

A. CLAIM 35

Claim 35 depends from independent claim 28 and recites that the surface forming part of the vehicle body comprises a roof ditch.

1. The Obviousness Rejection Based on JP'975 In View of Schappert, Manser and JP'049

For reasons similar to those given above, the art of record does not suggest to one skilled in the art to (1) combine select portions of the teaching of JP'975 with select portions of the teaching of Schappert, select portions of the teaching of Manser and select portions of the teaching of JP'049, (2) substitute a dimensionally stable oriented polyester film for upper layer 4a in the disclosed tape 4 of JP'975 to form a modified tape 4, (3) substitute a semi-crystalline,

[1] It should be noted that the teaching of JP'975 specifically discloses a thickness of adhesive layer 4b in the range

thermosetting epoxy-polyester blend for lower adhesive layer 4b in the disclosed tape 4 of JP'975 to form a further modified tape 4, and then (4) use the further modified tape 4 in place of rod 6 in the teaching of JP'049 to seal a step joint in a roof ditch as suggested by Examiner Johnstone. It is respectfully submitted that Examiner Johnstone's rejection is based on hindsight reasoning in an attempt to reconstruct Appellant's claimed invention as embodied in claim 35.

For at least these reasons, Appellant respectfully submits that the proposed combination of select portions of the teaching of JP'975, select portions of the teaching of Schappert, select portions of the teaching of Manser and select portions of the teaching of JP'049 is improper, and fails to make obvious Appellant's claimed invention as embodied in claim 35. Accordingly, reversal of this rejection is respectfully requested.

IX. REJECTION UNDER 35 U.S.C. §103(a) IN VIEW OF JP'049, SHIMIZU AND REANEY

Claims 6, 8, 12-13, 16-17, 20-24, 26-27, and 33-34 stand rejected under 35 U.S.C. §103(a) as being unpatentable over JP'049 in view of U.S. Patent No. 5,126,188 to Shimizu et al. (hereinafter, "Shimizu") and U.S. Patent No. 5,162,149 to Reaney (hereinafter, "Reaney"). Reversal of this rejection is respectfully requested.

A. CLAIMS 6, 8, 16-17, 20, 26-27 AND 33-34

Appellant's claimed invention, as embodied in independent claim 6, is directed to a method for modifying a surface of a step joint in a vehicle body as described above.

Claims 8, 16-17, 20, 26-27 and 33-34 depend from independent claim 6 and recite additional claim features.

1. Additional Art Relied Upon By Examiner Johnstone

a. Shimizu

The teaching of Shimizu is directed to a film-coated shaped materials for use in sealing an electronic part (e.g., switches, relays, potentiometers, transformers, capacitors, sensors, etc.), wherein the film-coated shaped material has high shape retentivity. It should be noted that

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of 30 to 100 μm (0.030 to 0.100 mm). See, the English translation, page 6, lines 19-20.

the teaching of Shimizu has nothing to do with a method for modifying a surface of a step joint in a vehicle body as recited in Appellant's independent claim 6.

b. Reaney

The teaching of Reaney is directed to a non-blocking waterproof seam tape for covering sewn seams of garments. It should be noted that the teaching of Reaney has nothing to do with a method for modifying a surface of a step joint in a vehicle body as recited in Appellant's independent claim 6.

2. The Obviousness Rejection Based on JP'049, Shimizu and Reaney

On page 9, lines 1-11 of the November 16, 2006 final Office Action, Examiner Johnstone suggest that it would have been obvious to one skilled in the art, given the teaching of JP'049, to combine a dimensionally stable film, as allegedly disclosed in the teachings of Shimizu and Reaney, with the single layer of thermosetting material (e.g., rod 6) of JP'049, and then utilize the resulting two-layered structure to seal a roof ditch. In particular, Examiner Johnstone states:

> It would therefore have been obvious to one of ordinary skill in the art to provide the sealing tape in the prior art roof ditch sealing method with a dimensionally stable film backing having no substantial shrinkage in order to confine the adhesive to the desired area to be sealed.

Appellant respectfully submits that there is no disclosure, teaching or suggestion in JP'049 that would have motivated one skilled in the art to (1) seek out the teachings of Shimizu and Reaney, (2) remove a film layer from the disclosed film-coated shapes of Shimizu or from the waterproof tapes of Reaney, (3) combine (i) the removed film layer from the disclosed film-coated shapes of Shimizu or from the waterproof tapes of Reaney with (ii) single-layer rod 6 disclosed in the teaching of JP'049, and then (4) utilize the resulting two-layered structure to seal a step joint in a roof ditch instead of the single-layered rod 6 in the disclosed roof ditch sealing method of JP'049.

Appellant respectfully submits that (1) the teaching of JP'049 teaches away from Examiner Johnstone's proposed method given that JP'049 specifically discloses the use of a single-layered rod 6 for sealing a roof ditch; (2) one skilled in the art would not ignore critical components of the teaching of JP'049 directed to the use of a single layer of melt-flowable

thermosetting resin material (e.g., rod 6) to seal a step joint in a roof ditch, and instead utilize a structure resulting from the proposed combination of selected portions of the teachings of JP'049, Shimizu and Reaney; (3) the teachings of Shimizu and Reaney are non-analogous art having nothing to do with a roof ditch sealing method; and (4) Examiner Johnstone has again resorted to an impermissible "pick and choose" strategy based on hindsight reasoning, ignoring the principle teaching of JP'049, in an attempt to reconstruct Appellant's claimed invention.

For at least the reasons given above, Appellant respectfully submits that the proposed combination of the teaching of JP'049 with the teaching of Shimizu and the teaching of Reaney and the subsequent modification of the teaching of JP'049 is improper, and that a *prima facie* case of obviousness has not been made with regard to the rejection of independent claim 6. Since claims 8, 16-17, 20, 26-27 and 33-34 depend from independent claim 6 and recite additional claim features, the proposed combination of the teaching of JP'049 with the teaching of Shimizu and the teaching of Reaney also fails to make obvious Appellant's claimed invention as embodied in dependent claims 8, 16-17, 20, 26-27 and 33-34. Accordingly, reversal of this rejection is respectfully requested.

B. CLAIMS 12-13

Appellant's claimed invention, as embodied in dependent claims 12-13, is directed to the method as recited in Appellant's independent claim 6, wherein the dimensionally stable film of the sheet material comprises (i) an oriented polyester film (claim 12) or (ii) oriented polyethylene terephthalate (claim 13).

1. Additional Description of Art Relied Upon By Examiner Johnstone

a. Shimizu

See a description of the teaching of Shimizu above. It should be further noted that the teaching of Shimizu does not disclose, teach or suggest an oriented polyester film.

b. Reaney

See a description of the teaching of Reaney above. It should be further noted that the teaching of Reaney does not disclose, teach or suggest an oriented polyester film.

2. The Obviousness Rejection Based on JP'049, Shimizu and Reaney

For reasons similar to those given above, the art of record does not disclose, teach or suggest Appellant's claimed invention as embodied in independent claim 6.

In addition, Shimizu and Reaney fail to disclose an oriented polyester film. Consequently, even if the proposed combination of select portions of the teaching of JP'049 with select portions of the teaching of Shimizu and select portions of the teaching of Reaney is proper (and Appellant respectfully submits that the proposed combination is improper), the combined teaching of the select portions of the teaching of JP'049 with the select portions of the teaching of Shimizu and the select portions of the teaching of Reaney would still fail to make obvious Appellant's claimed invention as embodied in claims 12-13.

For at least these reasons, Appellant respectfully submits that the proposed combination of select portions of the teaching of JP'049 with select portions of the teaching of Shimizu and select portions of the teaching of Reaney is improper, and fails to make obvious Appellant's claimed invention as embodied in claims 12-13. Accordingly, reversal of this rejection is respectfully requested.

C. CLAIMS 21-24

Appellant's claimed invention, as embodied in dependent claims 21-24, is directed to the method as recited in Appellant's independent claim 6, wherein the dimensionally stable film of the sheet material exhibits a downweb and crossweb shrinkage of less than about 5% (less than about 3%, less than about 2%, or less than about 1%) during the heating step.

1. Additional Description of Art Relied Upon By Examiner Johnstone

a. Shimizu

See a description of the teaching of Shimizu above. It should be further noted that the teaching of Shimizu does not disclose, teach or suggest a dimensionally stable film that exhibits a downweb and crossweb shrinkage of less than about 5% (less than about 3%, less than about 2%, or less than about 1%) during a heating step.

b. Reaney

See a description of the teaching of Reaney above. It should be further noted that

the teaching of Reaney does not disclose, teach or suggest a dimensionally stable film that exhibits a downweb and crossweb shrinkage of less than about 5% (less than about 3%, less than about 2%, or less than about 1%) during a heating step.

2. The Obviousness Rejection Based on JP'049, Shimizu and Reaney

For reasons similar to those given above, the art of record does not disclose, teach or suggest Appellant's claimed invention as embodied in independent claim 6.

In addition, Shimizu and Reaney fail to disclose a dimensionally stable film that exhibits a downweb and crossweb shrinkage of less than about 5% (less than about 3%, less than about 2%, or less than about 1%) during a heating step. Consequently, even if the proposed combination of select portions of the teaching of JP'049 with select portions of the teaching of Shimizu and select portions of the teaching of Reaney is proper (and Appellant respectfully submits that the proposed combination is improper), the combined teaching of the select portions of the teaching of JP'049 with the select portions of the teaching of Shimizu and the select portions of the teaching of Reaney would still fail to make obvious Appellant's claimed invention as embodied in claims 21-24.

For at least these reasons, Appellant respectfully submits that the proposed combination of select portions of the teaching of JP'049 with select portions of the teaching of Shimizu and select portions of the teaching of Reaney is improper, and fails to make obvious Appellant's claimed invention as embodied in claims 21-24. Accordingly, reversal of this rejection is respectfully requested.

X. REJECTION UNDER 35 U.S.C. §103(a) IN VIEW OF JP'049, SHIMIZU, REANEY, SCHAPPERT AND MANSER

Claims 7, 9, 28 and 35 stand rejected under 35 U.S.C. §103(a) as being unpatentable over JP'049 in view of Shimizu and Reaney, and further in view of Schappert and Manser. Reversal of this rejection is respectfully requested.

A. CLAIM 7

Claim 7 depends from independent claim 6 and recites that the melt-flowable composition comprises a thermoplastic composition.

1. **The Obviousness Rejection Based on JP'049 In View of Shimizu, Reaney, Schappert and Manser**

JP'049 fails to disclose, teach or suggest the use of a thermoplastic material in rod 6.

For reasons similar to those given above, the art of record does not disclose, teach or suggest Appellant's claimed invention as embodied in independent claim 6.

For at least these reasons, Appellant respectfully submits that the proposed combination of select portions of the teaching of JP'049 with select portions of the teaching of Shimizu, select portions of the teaching of Reaney, select portions of the teaching of Schappert and select portions of the teaching of Manser is improper, and fails to make obvious Appellant's claimed invention as embodied in claim 7. Accordingly, reversal of this rejection is respectfully requested.

B. CLAIM 9

Claim 9 depends from independent claim 6 and recites that the melt-flowable composition comprises a semi-crystalline, thermosetting composition comprising an epoxy-polyester blend.

1. **The Obviousness Rejection Based on JP'049 In View of Shimizu, Reaney, Schappert and Manser**

JP'049 fails to disclose, teach or suggest the use of a semi-crystalline, thermosetting composition comprising an epoxy-polyester blend to form rod 6.

For reasons similar to those given above, the art of record does not disclose, teach or suggest Appellant's claimed invention as embodied in independent claim 6.

For at least these reasons, Appellant respectfully submits that the proposed combination of select portions of the teaching of JP'049 with select portions of the teaching of Shimizu, select portions of the teaching of Reaney, select portions of the teaching of Schappert and select portions of the teaching of Manser is improper, and fails to make obvious Appellant's claimed invention as embodied in claim 9. Accordingly, reversal of this rejection is respectfully requested.

C. CLAIM 28

Appellant's independent claim 28 is directed to a method for modifying a surface forming part of a vehicle body as described above. Claim 35 depends from independent claim 28 and recites that the surface forming part of the vehicle body comprises a roof ditch.

1. The Obviousness Rejection Based on JP'049 In View of Shimizu, Reaney, Schappert and Manser

JP'049 fails to disclose, teach or suggest the use of a semi-crystalline, thermosetting composition comprising an epoxy-polyester blend to form rod 6. Further, as discussed above, the teaching of JP'049 fails to disclose, teach or suggest the use of a dimensionally stable oriented polyester film or any other film to form single-layered rod 6.

For reasons similar to those given above, the art of record does not suggest to one skilled in the art to (1) combine select portions of the teaching of JP'049 with select portions of the teaching of Shimizu, select portions of the teaching of Reaney, select portions of the teaching of Schappert and select portions of the teaching of Manser, (2) remove a film layer from the disclosed film-coated shapes of Shimizu or from the waterproof tapes of Reaney, (3) combine (i) the removed film layer from the disclosed film-coated shapes of Shimizu or from the waterproof tapes of Reaney with (ii) single-layer rod 6 disclosed in the teaching of JP'049, (4) substitute the composition of Schappert or Manser for the thermosetting composition of rod 6 in the teaching of JP'049 simply because the disclosed blends of Schappert and Manser are well known in the art, and then (5) utilize the resulting two-layered structure to seal a step joint in a roof ditch instead of the single-layered rod 6 in the disclosed roof ditch sealing method of JP'049. Such a proposed modification of the teaching of JP'049 ignores the principle teaching of JP'049, namely, the use of a single-layered thermosetting rod 6 in the disclosed roof ditch sealing method.

For at least these reasons, Appellant respectfully submits that the proposed combination of select portions of the teaching of JP'049 with select portions of the teaching of Shimizu, select portions of the teaching of Reaney, select portions of the teaching of Schappert and select portions of the teaching of Manser is improper, and fails to make obvious Appellant's claimed invention as embodied in independent claim 28. Since claim 35 depends from

independent claim 28 and recites additional claim features, the proposed combination of select portions of the teaching of JP'049 with select portions of the teaching of Shimizu, select portions of the teaching of Reaney, select portions of the teaching of Schappert and select portions of the teaching of Manser also fails to make obvious Appellant's claimed invention as embodied in dependent claim 35. Accordingly, reversal of this rejection is respectfully requested.

XI. REJECTION UNDER 35 U.S.C. §103(a) IN VIEW OF JP'049, SHIMIZU, REANEY, LEATHERMAN1 AND LEATHERMAN2

Claims 10-11 stand rejected under 35 U.S.C. §103(a) as being unpatentable over JP'049 in view of Shimizu and Reaney, and further in view of Leatherman1 and Leatherman2. Reversal of this rejection is respectfully requested.

A. CLAIMS 10-11

Claims 10-11 depends from independent claim 6 and recites that the dimensionally stable film comprises an ultra-high molecular weight polyolefin (claim 10) or an ultra-high molecular weight microporous polyolefin (claim 11).

1. The Obviousness Rejection Based on JP'049 In View of Leatherman1 and Leatherman2

JP'049 fails to disclose, teach or suggest the use of a dimensionally stable ultra-high molecular weight polyolefin or any other film to form single-layered rod 6.

For reasons similar to those given above, the art of record does not disclose, teach or suggest Appellant's claimed invention as embodied in independent claim 6.

For at least these reasons, Appellant respectfully submits that the proposed combination of select portions of the teaching of JP'049 with select portions of the teaching of Shimizu, select portions of the teaching of Reaney, select portions of the teaching of Leatherman1 and select portions of the teaching of Leatherman2 is improper, and fails to make obvious Appellant's claimed invention as embodied in dependent claims 10-11. Accordingly, reversal of this rejection is respectfully requested.

XII. REJECTION UNDER 35 U.S.C. §103(a) IN VIEW OF JP'049, SHIMIZU, REANEY, MANSER AND JP'516

Claims 18, 29, 31 and 36-37 stand rejected under 35 U.S.C. §103(a) as being unpatentable over JP'049 in view of Shimizu and Reaney, and further in view of Manser and JP'516. Reversal of this rejection is respectfully requested.

A. CLAIMS 18, 29 AND 36-37

Claim 18 depends from independent claim 6 and recites that the dimensionally stable film further comprises a substantially smooth, paint-receptive surface comprising a thermosetting epoxy-polyester blend.

Independent claim 29 is directed to a method for modifying a surface of a substrate as described above. Claims 36-37 depend from independent claim 29 and further recite that the claimed method further comprising applying paint to the paint-receptive upper surface (claim 36), wherein the paint comprises an epoxy containing paint (claim 37).

1. The Obviousness Rejection Based on JP'049 In View of Shimizu, Reaney, Manser and JP'516

JP'049 fails to disclose, teach or suggest the use of a dimensionally stable film or any other film to form single-layered rod 6. Further, the teaching of JP'049 fails to disclose, teach or suggest (1) a method step utilizing an article comprising (i) a melt-flowable composition in combination with (ii) a dimensionally stable film comprising a substantially smooth, paint-receptive upper surface comprising a thermosetting epoxy-polyester blend; and (2) a method comprising heating the above-described article to cause the melt-flowable composition to flow and substantially cover a desired area of a surface to adhere the article to the surface, while the dimensionally stable film controls the melt-flow behavior of the melt-flowable composition to substantially confine the melt-flowable composition to the desired area of the surface.

For reasons similar to those given above, the art of record does not disclose, teach or suggest Appellant's claimed invention as embodied in independent claims 6 or 29.

For at least these reasons, Appellant respectfully submits that the proposed combination of select portions of the teaching of JP'049 with select portions of the teaching of

Shimizu, select portions of the teaching of Reaney, select portions of the teaching of Manser and select portions of the teaching of JP'516 is improper, and fails to make obvious Appellant's claimed invention as embodied in claims 18, 29 and 36-37. Accordingly, reversal of this rejection is respectfully requested.

B. CLAIM 31

Claim 31 depends from independent claim 29 and recites that the dimensionally stable film comprises an oriented polyester film.

1. The Obviousness Rejection Based on JP'049 In View of Shimizu, Reaney, Manser and JP'516

For reasons similar to those given above, the art of record does not disclose, teach or suggest Appellant's claimed invention as embodied in independent claim 29.

Further, it should be noted that the proposed combination of select portions of the teaching of JP'049 with select portions of the teaching of Shimizu, select portions of the teaching of Reaney, select portions of the teaching of Manser and select portions of the teaching of JP'516, even if proper (and Appellant submits that the proposed combination is improper), still fails to teach or suggest the use of a dimensionally stable film comprising an oriented polyester film having a substantially smooth, paint-receptive upper surface comprising a thermosetting epoxy-polyester blend as recited in dependent claim 31.

For at least these reasons, Appellant respectfully submits that the proposed combination of select portions of the teaching of JP'049 with select portions of the teaching of Shimizu, select portions of the teaching of Reaney, select portions of the teaching of Manser and select portions of the teaching of JP'516 is improper, and fails to make obvious Appellant's claimed invention as embodied in claim 31. Accordingly, reversal of this rejection is respectfully requested.

XIII. REJECTION UNDER 35 U.S.C. §103(a) IN VIEW OF JP'049, SHIMIZU, REANEY AND JP'975

Claim 19 stands rejected under 35 U.S.C. §103(a) as being unpatentable over JP'049 in view of Shimizu and Reaney, and further in view of JP'975. Reversal of this rejection

is respectfully requested.

A. CLAIM 19

Claim 19 depends from independent claim 6 and recites that the substantially smooth, paint-receptive surface comprises an ethylene-vinyl alcohol film.

1. The Obviousness Rejection Based on JP'049 In View of Shimizu, Reaney and JP'975

For reasons similar to those given above, the art of record does not disclose, teach or suggest Appellant's claimed invention as embodied in independent claim 6.

For at least these reasons, Appellant respectfully submits that the proposed combination of select portions of the teaching of JP'049 with select portions of the teaching of Shimizu, select portions of the teaching of Reaney, and select portions of the teaching of JP'975 is improper, and fails to make obvious Appellant's claimed invention as embodied in claim 19. Accordingly, reversal of this rejection is respectfully requested.

XIV. REJECTION UNDER 35 U.S.C. §103(a) IN VIEW OF JP'049, SHIMIZU, REANEY AND EP'598

Claim 32 stands rejected under 35 U.S.C. §103(a) as being unpatentable over JP'049 in view of Shimizu and Reaney, and further in view of EP'598. Reversal of this rejection is respectfully requested.

A. CLAIM 32

Claim 32 depends from independent claim 6 and recites that the melt-flowable composition comprises a plurality of melt-flowable layers in which the melt-flow properties of the individual layers are tailored such that the layers cooperate with each other to seal a step joint.

1. The Obviousness Rejection Based on JP'049 In View of Shimizu, Reaney and EP'598

For reasons similar to those given above, the art of record does not disclose, teach or suggest Appellant's claimed invention as embodied in independent claim 6.

For at least these reasons, Appellant respectfully submits that the proposed combination of select portions of the teaching of JP'049 with select portions of the teaching of Shimizu, select portions of the teaching of Reaney, and select portions of the teaching of EP'598 is improper, and fails to make obvious Appellant's claimed invention as embodied in claim 32. Accordingly, reversal of this rejection is respectfully requested.

XV. REJECTION UNDER 35 U.S.C. §103(a) IN VIEW OF ARTZT, MANSER AND JP'516

Claims 29, 31 and 36-37 stand rejected under 35 U.S.C. §103(a) as being unpatentable over U.S. Patent No. 2,739,919 to Artzt (hereinafter, "Artzt") in view of Manser and JP'516. Reversal of this rejection is respectfully requested.

A. CLAIMS 29 AND 36-37

Independent claim 29 is directed to a method for modifying a surface of a substrate as described above in the "Summary of the Claimed Subject Matter" section of this Brief. Claims 36-37 depend from independent claim 29 and further recite that the claimed method further comprising applying paint to the paint-receptive upper surface (claim 36), wherein the paint comprises an epoxy containing paint (claim 37).

1. Additional Art Relied Upon By Examiner Johnstone

a. Artzt

The teaching of Artzt is directed to a method of coating fabrics. The disclosed method comprises forming a film layer 24 on a carrier sheet 12 (see, FIG. 1); forming an adhesive layer on film layer 24 (see, FIG. 3); bonding a fabric layer 34 to the adhesive layer (see, FIG. 3); and subsequently stripping carrier sheet 12 from the resulting coated fabric (see, FIG. 3).

2. The Obviousness Rejection Based on Artzt In View of Manser and JP'516

Artzt fails to disclose, teach or suggest (1) a method step utilizing a thermosetting epoxy-polyester blend; (2) a method step utilizing a dimensionally stable film; (3) a method step utilizing an article comprising (i) a melt-flowable composition, (ii) a dimensionally stable film, and (iii) a substantially smooth, paint-receptive upper surface comprising a thermosetting epoxy-

polyester blend on the dimensionally stable film; and (4) a method comprising placing the above-described article on a surface and heating the above-described article to cause the melt-flowable composition to flow and substantially cover a desired area of the surface to adhere the article to the surface, while the dimensionally stable film controls the melt-flow behavior of the melt-flowable composition to substantially confine the melt-flowable composition to the desired area of the surface.

For reasons similar to those given, the art of record does not suggest to one skilled in the art to (1) form an article comprising (i) a melt-flowable composition and (ii) a dimensionally stable film comprising a substantially smooth, paint-receptive upper surface comprising a thermosetting epoxy-polyester blend using the materials and method disclosed in the teaching of Artzt, (2) provide a substantially smooth, paint-receptive upper surface comprising a thermosetting epoxy-polyester blend on an upper surface of the dimensionally stable film layer in the article simply because thermosetting epoxy-polyester blends are well known in the art as disclosed in the teachings of Manser and JP'516, and then (3) utilize the resulting three-layered structure to modify a surface of a substrate.

Appellant respectfully submits that there must be some suggestion or motivation in the teaching of Artzt to (1) seek out the teachings of Manser and JP'516, and then (2) combine select portions of the teaching of Artzt with select portions of the teaching of Manser and the teaching of JP'516 as suggested by Examiner Johnstone. However, the teaching of Artzt does not, in any way, suggest the need or desire to (1) provide a substantially smooth, paint-receptive upper surface comprising a thermosetting epoxy-polyester blend on the disclosed coated fabrics or (2) utilize a melt-flowable adhesive composition. In contrast, the process disclosed in the teaching of Artzt is specifically designed to avoid flow of coating material into the "openings or crevices in the surface of the fabric." See, for example, Artzt, column 1, lines 21-42.

It is difficult for Appellant to understand why one of ordinary skill in the art, given the teaching of Artzt directed to a process for coating fabrics, would have (1) sought out the teaching of Manser directed to epoxy adhesives and the teaching of JP'516 directed to paint films, (2) combined portions of the teaching of Artzt with portions of the teaching of Manser and the teaching of JP'516 to construct an article as recited in Appellant's claim 29, and then (3) utilized the resulting article in a method of modifying a surface of a substrate as recited in

Appellant's claim 29. Appellant respectfully submits that the only motivation for modifying the teaching of Artzt as suggested by Examiner Johnstone has been gleaned from Appellant's claimed invention, not from what is taught, disclosed or suggested in the art of record.

For at least these reasons, Appellant respectfully submits that the proposed combination of select portions of the teaching of Artzt with select portions of the teaching of Shimizu, select portions of the teaching of Reaney, select portions of the teaching of Manser and select portions of the teaching of JP'516 is improper, and fails to make obvious Appellant's claimed invention as embodied in claims 18, 29 and 36-37. Accordingly, reversal of this rejection is respectfully requested.

B. CLAIM 31

Claim 31 depends from independent claim 29 and recites that the dimensionally stable film comprises an oriented polyester film.

1. The Obviousness Rejection Based on Artzt In View of Manser and JP'516

For reasons similar to those given above, the art of record does not disclose, teach or suggest Appellant's claimed invention as embodied in independent claim 29.

Further, it should be noted that the proposed combination of select portions of the teaching of Artzt with select portions of the teaching of Manser and select portions of the teaching of JP'516, even if proper (and Appellant submits that the proposed combination is improper), still fails to teach or suggest the use of a dimensionally stable film comprising an oriented polyester film having a substantially smooth, paint-receptive upper surface comprising a thermosetting epoxy-polyester blend as recited in dependent claim 31.

For at least these reasons, Appellant respectfully submits that the proposed combination of select portions of the teaching of Artzt with select portions of the teaching of Manser and select portions of the teaching of JP'516 is improper, and fails to make obvious Appellant's claimed invention as embodied in claim 31. Accordingly, reversal of this rejection is respectfully requested.

CONCLUSION

For at least the reasons given above, Appellant respectfully submits that the art of record fails to anticipate or make obvious the claimed invention as embodied in Appellant's claims 6-13, 16-24, 26-29 and 31-37. Accordingly, it is respectfully submitted that each of the above rejections should be reversed.

Please charge any additional fees or credit any overpayment to Withers & Keys, LLC, Deposit Account No. 503025.

Respectfully submitted,

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3M Docket No.: 49286US003

CLAIMS APPENDIX

6. A method for modifying a surface of a step joint in a vehicle body comprising the steps of:

(a) placing a sheet material on the surface of the step joint, said sheet material comprising (i) a lower melt-flowable layer comprising a melt-flowable composition, the melt-flowable layer having a thickness in the range of at least about 0.05 mm up to about 25 mm, and (ii) a dimensionally stable film for controlling the melt-flow behavior of said melt-flowable composition, said film having a surface topography and being sufficiently dimensionally stable so as not to melt and flow or exhibit wrinkling when heated to a melt sealing temperature of the melt-flowable composition and subsequently cooled, said sheet material being placed on the surface of the step joint such that said melt-flowable composition contacts said surface of the step joint;

(b) heating the sheet material to a melt sealing temperature sufficient to cause said melt-flowable composition to (1) melt, flow and level out over surface imperfections or fill gaps in the step joint, as well as (2) adhere and form a bond to the step joint; and

(c) allowing the sheet material and the step joint to cool while substantially retaining said surface topography of said film,

wherein the melt-flowable layer is thick enough to provide sufficient material to flow and seal the step joint, the sheet material remains adhered to the step joint, and topographical or protective features are imparted to the step joint by the sheet material.

7. A method according to claim 6 wherein said melt-flowable composition comprises a

thermoplastic composition.

8. A method according to claim 6 wherein said melt-flowable composition comprises a thermosetting composition.

9. A method according to claim 6 wherein said melt-flowable composition comprises a semi-crystalline, thermosetting composition comprising an epoxy-polyester blend.

10. A method according to claim 6 wherein said dimensionally stable film comprises an ultra-high molecular weight polyolefin.

11. A method according to claim 6 wherein said dimensionally stable film comprises an ultra-high molecular weight microporous polyolefin.

12. A method according to claim 6 wherein said dimensionally stable film comprises an oriented polyester.

13. A method according to claim 6 wherein said dimensionally stable film comprises oriented polyethylene terephthalate.

16. A method according to claim 6 wherein said dimensionally stable film comprises a substantially smooth surface topography.

17. A method according to claim 6 wherein said dimensionally stable film comprises a substantially smooth, paint-receptive surface,

said method further comprising applying paint to said paint-receptive surface,

said paint-receptive surface remaining substantially smooth following cooling.

18. A method according to claim 17 wherein said substantially smooth, paint-receptive surface comprises a thermosetting epoxy-polyester blend.

19. A method according to claim 17 wherein said substantially smooth, paint-receptive surface comprises an ethylene-vinyl alcohol film.

20. A method according to claim 6 wherein said dimensionally stable film comprises a substantially smooth, bondable surface,

said method further comprising bonding a component to said bondable surface of said film.

21. A method according to claim 6 wherein said dimensionally stable film exhibits a downweb and crossweb shrinkage of less than about 5% during said heating step.

22. A method according to claim 6 wherein said dimensionally stable film exhibits a downweb and crossweb shrinkage of less than about 3% during said heating step.

23. A method according to claim 6 wherein said dimensionally stable film exhibits a downweb and crossweb shrinkage of less than about 2% during said heating step.

24. A method according to claim 6 wherein said dimensionally stable film exhibits a downweb shrinkage of less than about 1% and a crossweb shrinkage of less than about 0.5% during said heating step.

26. A method according to claim 6 wherein the surface of the step joint forms part of a roof ditch.

27. A method according to claim 26 wherein said dimensionally stable film comprises a substantially smooth, paint-receptive surface,

said method further comprising applying paint to said paint-receptive surface,

said paint-receptive surface remaining substantially smooth following cooling.

28. A method for modifying a surface forming part of a vehicle body comprising the steps of:

(a) placing on said surface forming part an article comprising (i) a melt-flowable composition comprising a semi-crystalline, thermosetting epoxy-polyester blend and (ii) a dimensionally stable film for controlling the melt-flow behavior of said melt-flowable composition, such that said melt-flowable composition contacts said surface forming part, said film comprising an oriented polyester film having a substantially smooth surface topography;

(b) heating said article to cause said melt-flowable composition to flow and substantially cover a desired area of said surface forming part to adhere said article to said surface forming part, said dimensionally stable film exhibiting a downweb and crossweb shrinkage of less than about 5% and controlling the melt-flow behavior of said melt-flowable composition to substantially confine said melt-flowable composition to said desired area of said surface forming part; and

(c) allowing said article to cool while substantially retaining said substantially smooth surface topography of said film.

29. A method for modifying a surface of a substrate comprising the steps of:

(a) placing on said surface an article comprising (i) a melt-flowable composition and (ii) a dimensionally stable film for controlling the melt-flow behavior of said melt-flowable composition, such that said melt-flowable composition contacts said surface, said film being disposed above said melt-flowable composition and comprising a substantially smooth, paint-receptive upper surface comprising a thermosetting epoxy-polyester blend;

(b) heating said article to cause said melt-flowable composition to flow and substantially cover a desired area of said surface to adhere said article to said surface, said dimensionally stable film controlling the melt-flow behavior of said melt-flowable composition to substantially confine said melt-flowable composition to said desired area of said surface; and

(c) allowing said article to cool while substantially retaining said substantially smooth surface topography of said film.

31. A method according to claim 29 wherein said dimensionally stable film comprises an oriented polyester film.

32. A method according to claim 6 wherein said melt-flowable composition comprises a plurality of melt-flowable layers in which the melt-flow properties of the individual layers are tailored such that said layers cooperate with each other to seal said step joint.

33. A method according to claim 6, wherein the melt-flowable layer has a thickness in the range of from 0.20 mm to 10 mm.

34. A method according to claim 6, further comprising the step of painting the sheet material after the sheet material is allowed to cool.

35. A method according to claim 28, wherein the surface forming part of the vehicle body comprises a roof ditch.

36. A method according to claim 29, said method further comprising applying paint to said paint-receptive upper surface.

37. A method according to claim 36, wherein said paint comprises an epoxy containing paint.

EVIDENCE APPENDIX

None

RELATED PROCEEDINGS APPENDIX

A copy of the Decision on Appeal (Appeal No. 1997-3870) mailed January 30, 2001 in the subject patent application is attached.

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE BOARD OF PATENT APPEALS
AND INTERFERENCES

Ex parte MICHAEL A. JOHNSON, CLAYTON A. GEORGE, PEGGY S. WILLETT and SCOTT R. MEYER

Appeal No. 1997-3870
Application No. 08/421,055

03/30/01 HCK pre

ON BRIEF

Before PAK, WALTZ and LIEBERMAN, *Administrative Patent Judges*.

WALTZ, *Administrative Patent Judge*.

DECISION ON APPEAL

This is an appeal under 35 U.S.C. § 134 from the examiner's refusal to allow claims 6 through 32 as amended subsequent to the final rejection (see the amendments dated Aug. 26, 1996, Paper No. 11, and Nov. 25, 1996, Paper No. 14, entered as per the Office action dated Sep. 12, 1996, Paper No. 12, and the Advisory Action dated Dec. 19, 1996, Paper No. 16, respectively). Claims 6 through 32 are the only claims remaining in this application.

According to appellants, the invention is directed to a method for modifying the surface of a substrate by use of an article comprising a melt-flowable composition and a

dimensionally stable film (Brief, pages 1-2). Claim 6 is illustrative of the subject matter on appeal and a copy of this claim is attached as an Appendix to this decision.

The examiner has relied upon the following references as evidence of obviousness:

Wagner et al. (Wagner)	3,837,984	Sep. 24, 1974
Pletcher	4,059,715	Nov. 22, 1977
Kan	4,631,233	Dec. 23, 1986
Schappert et al. (Schappert)	4,822,683	Apr. 18, 1989

Claims 6 through 32 stand rejected under 35 U.S.C. § 112, ¶1, for lack of support in the disclosure (Answer, page 4). Claims 14-15 and 29-31 stand rejected under 35 U.S.C. § 112, ¶1, as not completely enabled by the disclosure (*id.*). Claims 6-8, 16, 20-26 and 32 stand rejected under 35 U.S.C. § 102 as anticipated by or, in the alternative, under 35 U.S.C. § 103 as unpatentable over Wagner (*id.*). Claims 10-13 stand rejected under section 103 as unpatentable over Wagner in view of Pletcher (*id.*). Claims 9 and 28 stand rejected under section 103 as unpatentable over Wagner in view of Schappert (Answer, page 5). Claims 17-19 and 27 stand rejected under section 103 as unpatentable over Wagner in view of Kan (*id.*).

We *affirm* the examiner's rejection under § 112, ¶1, as the claims are "not (completely) supported by the disclosure"

(Answer, page 4) but *reverse* all of the other rejections for reasons which follow.

OPINION

A. The Rejections under 35 U.S.C. § 112, ¶1

The examiner has first rejected the claims on appeal under 35 U.S.C. § 112, first paragraph, "as being not (completely) supported by the disclosure."[1] *Id.* We note that the language of this rejection is equivalent to stating that appellants' disclosure fails to meet the "written description" requirement of 35 U.S.C. § 112, ¶1. *See Vas-Cath Inc. v. Mahurkar,* 935 F.2d 1555, 1560, 19 USPQ2d 1111, 1114 (Fed. Cir. 1991).

The examiner finds that there is no apparent support in the original disclosure for the claimed limitation requiring the dimensionally stable film to have a preselected surface topography, i.e., "said film having a pre-selected surface topography" (Answer, page 6; claim 6, part (a)).

Appellants agree that the exact language used in the claims "does not necessarily appear in the specification." Brief, page

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[1] We note that appellants state "[t]he rejected claims stand or fall together." Brief, page 6. In view of this statement and the provisions of 37 CFR § 1.192(c)(7)(1995), we select claim 6 from the grouping of claims and decide this appeal as to this ground of rejection on the basis of this claim alone.

13. However, appellants argue that the specification, when read as a whole, including page 7, ll. 8-17, page 27, ll. 17-19, and page 28, ll. 9-22, demonstrates applicants' recognition that in certain instances it is desirable to provide an article having a smooth surface or an article having a predetermined design on its surface (*id.*).

Ipsis verbis disclosure is not necessary to satisfy the written description requirement of 35 U.S.C. § 112. The disclosure need only reasonably convey to those of ordinary skill in the art that the inventors had possession of the subject matter in question. *Fujikawa v. Wattanasin,* 93 F.3d 1559, 1570, 39 USPQ2d 1895, 1904 (Fed. Cir. 1996). We agree with the examiner that appellants' disclosure does not reasonably convey to one of ordinary skill in the art that appellants had possession of "said [dimensionally stable] film having a pre-selected surface topography" as recited in claim 6 on appeal.

Appellants' citation of supporting disclosure (Brief, page 13) is not persuasive. The disclosure at page 27, ll. 17-19, of the specification merely states that the dimensionally stable film "can be used to provide smooth surfaces...." The examiner agrees that the films can be used on smooth surfaces (Answer, page 6). The disclosure at page 28, ll. 9-22, only sets forth

the definition and properties of dimensionally stable films but does not disclose anything about the pre-selected topography. The disclosure at page 7, ll. 8-17, is concerned with emblems or insignia. However, this disclosure is directed to the "sheet material" which has previously been defined as the melt-flowable sheet material or composition, not the dimensionally stable film (see the specification, page 7, ll. 13-15; and the definition of "melt-flowable sheet material" on page 6, ll. 10-21). Appellants specifically argue that a "melt-flowable composition" is defined in the specification at page 6, ll. 15-21 (Brief, page 3). We determine that the disclosure at page 7 is relevant to melt-flowable sheet material but fail to find any basis for the pre-selected surface topography of the dimensionally stable film. Accordingly, we determine no reversible error in the examiner's findings and affirm the rejection of claim 6 through 32 under 35 U.S.C. § 112, paragraph one, for failure to meet the "written description" requirement.

The examiner has rejected claims 14, 15 and 29-31 under 35 U.S.C. § 112, ¶1, as "not completely enabled by the disclosure." Answer, page 4. As noted in *Vas-Cath Inc. v. Mahurkar,* 935 F.2d at 1563, 19 USPQ2d at 1117, the written description requirement of 35 U.S.C. § 112, ¶1, is separate and

distinct from the enablement requirement. "To be enabling, the specification of a patent must teach those skilled in the art how to make and use the full scope of the claimed invention without 'undue experimentation.'" *In re Wright*, 999 F.2d 1557, 1561, 27 USPQ2d 1510, 1513 (Fed. Cir. 1993). Whether making and using the invention as claimed would have required undue experimentation is a legal conclusion based upon several underlying factual inquiries. *See In re Wands*, 858 F.2d 731, 735-37, 8 USPQ2d 1400, 1402-04 (Fed. Cir. 1988).

The examiner finds that the specification, at page 27, ll. 10-22, clearly indicates that epoxy-polyester blends must be fully thermoset/crosslinked when employed as a dimensionally stable film (Answer, page 6). Appellants argue that the claimed word "thermosetting" refers to compositions which are not completely set, as used in the art and the specification (Brief, page 14). Appellants cite page 29, ll. 23-27, of the specification, for the disclosure of optional curing of dimensionally stable films (Brief, page 15).

We determine that the examiner has not met the initial burden of establishing why one of ordinary skill in the art could not practice the subject matter as claimed without undue experimentation. The examiner has not made the necessary factual

findings to support a legal conclusion of lack of enablement.[2] Appellants' specification, at page 27, ll. 10-22, does not disclose that it is critical that the epoxy-polyesters be crosslinked when used as dimensionally stable films but only teaches crosslinked epoxy-polyesters as *examples* of thermoset films. Additionally, as argued by appellants, the disclosure teaches optional curing of films, although these films are in combination with other components (specification, page 29, ll. 16-27).

For the foregoing reasons, we determine that the examiner has not presented the underlying factual inquiries to support his

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[2] We again note the difference in the written description and enablement requirements of section 112. *See Vas-Cath, supra.* Although we determine that the examiner here has not met the initial burden of establishing that the disclosure lacks enablement, this does not mean that the claimed subject matter is based on sufficient written description in the original disclosure. In the event of further or continuing prosecution of this application, the examiner and applicants should determine whether the "written description" requirement of section 112 has been fulfilled for the subject matter of claims 14, 15 and 30, i.e., whether there is sufficient basis in the original disclosure to reasonably convey to one of ordinary skill in the art that applicants had possession of the subject matter of these claims.

legal conclusion. Accordingly, the examiner's rejection of claims 14, 15 and 29-31 under 35 U.S.C. § 112, first paragraph, is reversed.

B. The Rejections under 35 U.S.C. § 103

Claim 6 on appeal requires that a melt-flowable composition contacts the surface of the substrate and, upon heating, flows over and substantially covers a desired area of said surface to adhere the article to said surface (see claim 6, parts (a) and (b)). The sole or primary reference in every rejection advanced by the examiner is Wagner, who teaches a thermoplastic adhesive with a support layer of polyurethane where the dried nitrile phenolic adhesive composition "will soften to cause adhesion" when heat is applied (Wagner, abstract, col. 1, ll. 13-17). Therefore Wagner fails to disclose or teach the claimed limitation that the melt-flowable composition upon heating flows over and substantially covers the surface of the substrate.

The examiner recognizes that Wagner only discloses "a heat softenable adhesive" (Answer, page 5). In response to appellants' argument that Wagner merely discloses a heat softenable adhesive that does not flow and wet the surface (Brief, pages 8-9), the examiner finds that "the thermosetting adhesive employed by these patentees [Wagner] is held/seen to be

initially advanced to no further than B-stage (which is held/seen to indicate/provide for the occurrence of at least some flow at elevated temperature, prior to the attainment of full (ie [sic] C-stage) cure)." Answer, page 7. However, the examiner fails to cite any evidence or reasoning to support this last finding. Accordingly, we determine that Wagner fails to disclose or suggest a melt-flowable composition as required by claim 6 on appeal. Furthermore, we agree with appellants that the adhesive of Wagner could not be employed for its intended use if the adhesive composition was melt-flowable (Brief, page 9; see Wagner, col. 5, ll. 4-22 and Figure 7).

Pletcher, Schappert and Kan have been applied by the examiner to show the conventionality of various features recited in dependent claims (Answer, pages 5-6). Accordingly, these secondary references do not remedy the deficiency in Wagner as discussed above.

For the foregoing reasons, we determine that the examiner has not provided a factual basis to show that every limitation of the claims is disclosed or taught by Wagner. Thus the rejection under 35 U.S.C. § 102 cannot be sustained. *See In re Bond*, 910 F.2d 831, 832, 15 USPQ2d 1566, 1567 (Fed. Cir. 1990). Similarly, we determine that the examiner has not provided a factual basis

sufficient to support a *prima facie* case of obviousness. Thus the rejections under section 103 cannot stand. *In re Warner*, 379 F.2d 1011, 1017, 154 USPQ 173, 178 (CCPA 1967).

C. Summary

The rejection of claims 6-32 under 35 U.S.C. § 112, ¶1, for failure to fulfill the written description requirement is affirmed. The rejection of claims 14, 15 and 29-31 under the first paragraph of 35 U.S.C. § 112 for lack of enabling disclosure is reversed.

The rejection of claims 6-8, 16, 20-26 and 32 under 35 U.S.C. § 102 as anticipated by or, in the alternative, under 35 U.S.C. § 103 as unpatentable over Wagner is reversed. The rejection of claims 10-13 under 35 U.S.C. § 103 as unpatentable over Wagner in view of Pletcher is reversed. The rejection of claims 9 and 28 under 35 U.S.C. § 103 as unpatentable over Wagner in view of Schappert is reversed. The rejection of claims 17-19 and 27 under 35 U.S.C. § 103 as unpatentable over Wagner in view of Kan is reversed.

The decision of the examiner in rejecting the claims on appeal is thereby affirmed.

No time period for taking any subsequent action in connection with this appeal may be extended under 37 CFR § 1.136(a).

AFFIRMED

CHUNG K. PAK
Administrative Patent Judge

THOMAS A. WALTZ
Administrative Patent Judge

PAUL LIEBERMAN
Administrative Patent Judge

BOARD OF PATENT APPEALS AND INTERFERENCES

jg

Appeal No. 1997-3870
Application No. 08/421,055

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APPENDIX

6. A method for modifying the surface of a substrate comprising the steps of:

(a) placing on said surface an article comprising (i) a melt-flowable composition and (ii) a dimensionally stable film for controlling the melt-flow behavior of said melt-flowable composition, such that said melt-flowable composition contacts said surface,

said film having a pre-selected surface topography;

(b) heating said article to cause said melt-flowable composition to flow and substantially cover a desired area of said surface to adhere said article to said surface,

said dimensionally stable film controlling the melt-flow behavior of said melt-flowable composition to substantially confine said melt-flowable composition to said desired area of said surface; and

(c) allowing said article to cool while substantially retaining said pre-selected surface topography of said film.